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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
Washington, DC 20554

Re: Reply Comments
ET Docket No. 92-298 (AM Stereo Standard)

Dear Ms. Searcy:

Enclosed is a Reply to Comments in the matter of the above
Docket.

Respectfully submitted,

Dennis Jackson
President and Chief Operator

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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REPLY COMMENTS
OF

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

THE RIDGEFIELD BROADCASTING CORPORATION
LICENSEE OF WREF(AM), RIDGEFIELD, CT

In the Matter of)
Amendment of the Commission's)
Rules to Establish a Single)
AM Radio Stereophonic Standard)

ET Docket No. 93-298

BACKGROUND

1. The writer has been a practicing AM broadcast engineer since 1966, operates a standalone AM station, and holds a B.S. in Electrical Engineering from Rensselaer Polytechnic Institute in Troy, NY. His qualifications are a matter of record at the Commission.

2. Interestingly, it might be noted that the first experiments in AM stereo transmission were conducted in the 1950's as part of a post-graduate thesis by a student at Rensselaer Polytechnic Institute, utilizing the facilities of WHAZ, for which at the time Rensselaer held the license. As Chief Engineer of WHAZ during the period 1966 through 1969, the writer had the opportunity to read and

stereomorphous phenomena as other compounds. Finally, the

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[REDACTED]

[REDACTED]

5. A major thrust of this R&O was to reduce levels of interference to AM stations. Certainly, therefore, as the Commission decides whether to mandate a standard, it cannot avoid considering the impact of the two primary competing AM stereo standards on interference experienced by the public, who constitute the users of AM stereo if a wise decision is made.

6. As has been discussed in this and other proceedings, the C-QUAM system employs phase-coded information to convey the stereo information. The vulnerability of such a system to interference with this phase-coded information by co-channel stations constitutes a major flaw has also been discussed and documented. C-QUAM stereo is vulnerable to not only the amplitude effects of interfering co-channel stations, but to the ever-changing interfering carrier phase effects of those interfering stations. This vulnerability causes two disconcerting effects (ie. interference) that listeners accustomed to clean FM stereo are not likely willing to tolerate in an AM stereo system. In the presence of co-channel interference, C-QUAM receivers cannot phase-lock with the desired carrier. Receivers thus "pop" in and out of the stereo mode. The ability of a receiver to hold phase-lock with the desired carrier further deteriorates under conditions of heavy modulation, during which the instantaneous strength of the desired carrier is frequently exceeded by that of the interfering carriers(s). and. in fact. reaches zero at

amount of co-channel interference the listener experiences a

9. In deciding whether to mandate an AM stereo standard, realistically, the Commission must acknowledge that it subsequently must choose one system over the other. Further, the system to be mandated must be chosen by evaluating all competing AM stereo transmission systems under real world conditions. Therefore, it must be acknowledged that the C-QUAM system will not decrease - and only can increase - AM stereo interference. By comparison, an ISB system will not increase interference, and can actually decrease it in several ways as indicated herein.

10. C-QUAM must not be mandated simply because it appears to enjoy some market penetration. It enjoys this position only on a playing field which has successfully been rendered uneven throughout the world by maneuvering in the marketplace and in the legal realm by its proponent, Motorola. Further, the absence of ISB receivers in the marketplace is due to Motorola's threat to receiver manufacturers as illustrated by the action threatened by this substantial U.S. corporation against Sony for manufacturing the SRF-A100 multi-mode AM stereo receiver (the unqualified finest AM receiver this writer has ever heard, but now off the market.) And the relatively small presence of C-QUAM receivers in the marketplace is has come about through arrangements reached by Motorola with other companies, rather than as a result of any significant consumer demand.

11. The activities that lead to the present marketplace situation as described above are presumably allowable under the law. However, in order that the public and not private interests be served, the Commission must avoid allowing this situation to A) first form the basis for mandating the use of a single standard, and, B) subsequently, due to any consideration other than a wise and proper engineering determination of which system will best serve the public interest, choose C-QUAM as that single standard. As always, the only mandate is that the public interest be served by the Commission doing the right thing.

Respectfully submitted,
THE RIDGEFIELD BROADCASTING
CORPORATION

By: 

Dennis Jackson
President and Chief Operator

April 26, 1993